

*Town of Evans  
6 ft Sidewalk*

# TOWN OF EVANS MULTI-USE PATHWAY CONCEPTUAL DESIGN REPORT

June 2003



PREPARED FOR:  
TOWN OF EVANS, NEW YORK

PREPARED BY:

WENDEL  DUCHSCHERER  
ARCHITECTS & ENGINEERS

# EVANS MULTI-USE PATHWAY CONCEPTUAL DESIGN REPORT

## ACKNOWLEDGEMENTS

The preparation of this report and the overall planning of the Evans Multi-Use Pathway project are the result of the combined efforts of the Town of Evans, Erie County, the Greater Buffalo Niagara Regional Transportation Council (GBNRTC), the Evans Bike/Hike Committee and the consultant team.

Persons contributing to this effort include:

### Town of Evans

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Tom Csati, Councilman  
Sandra Brant, Planning Chair  
Wayne Conrad, Recreation Department

### Erie County

Jeanne Chase, Legislator  
Michael Krasner, Environment & Planning  
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EVANS MULTI-USE PATHWAY  
CONCEPTUAL DESIGN REPORT  
JUNE 2003

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- F. Itemized Cost Opinions for grant applications
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## PROJECT DESCRIPTION

### INTRODUCTION

The Town of Evans Multi-Use Pathway will be a multipurpose bicycle and pedestrian pathway located within the Town of Evans. The majority of the proposed route will follow the Old Lake Shore Road corridor, a national scenic byway and part of the Seaway Trail, from Eighteen Mile Creek (Town of Hamburg border) to Evangola State Park. Other proposals include a spur down Sturgeon Point Road to the marina and a pathway connection along Lake Street into the Village of Angola (see Project Location Map on following page). In total, the project entails over thirteen miles of both on-road and off-road pathway. When phased construction is completed, the Town's waterfront parks and cultural resources will not only be connected to each other, but to the Town of Hamburg and the Village of Angola as well.

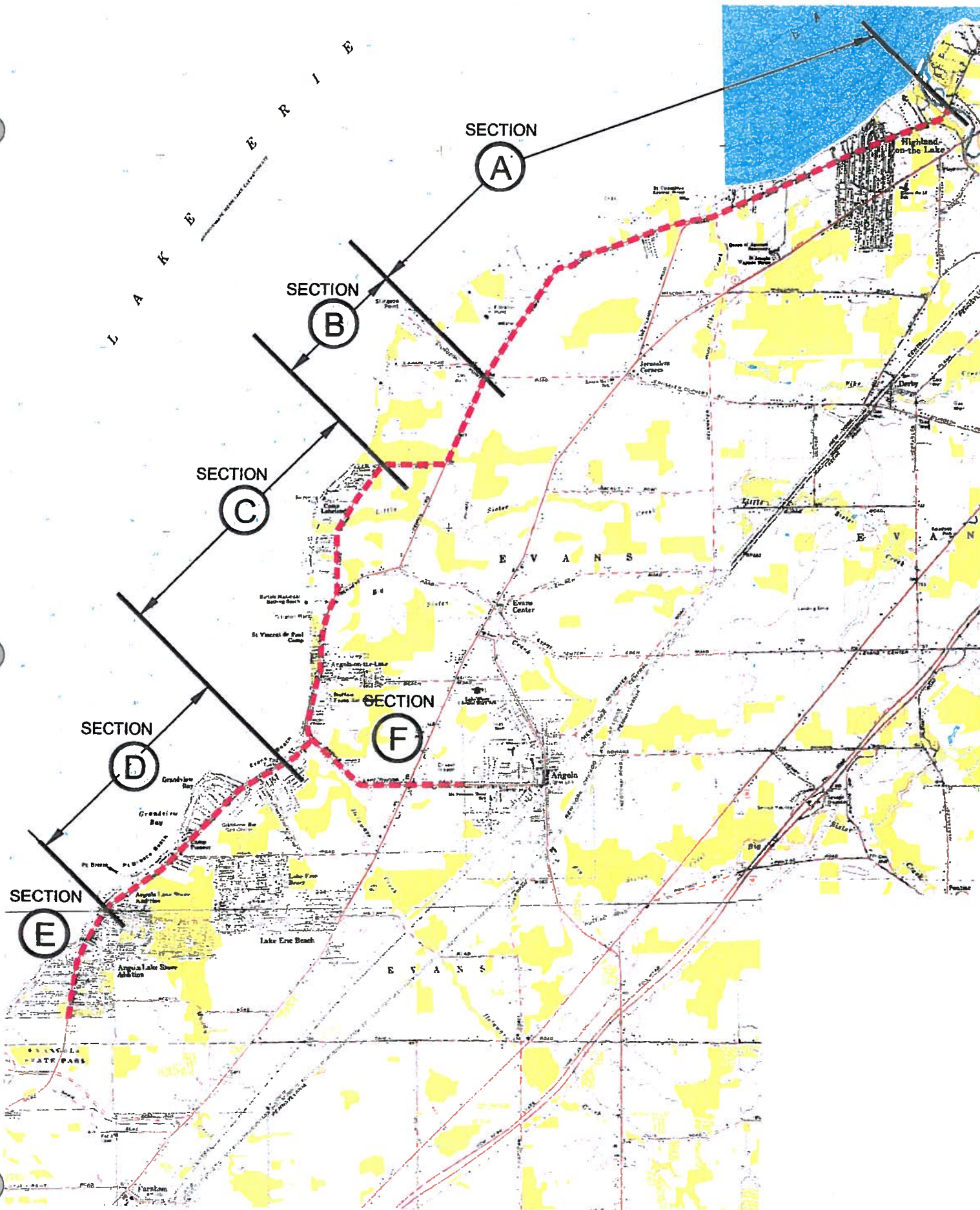
This report, which was funded by Erie County, will provide an overview of the design criteria, probable construction costs, and alternative route options for various segments of the proposed pathway. It will also identify key issues, coordination tasks and design options which should be resolved prior to or as part of future design development phases.

### PROJECT BENEFITS

The key benefit of the proposed project will be the establishment of a critical link in Erie County's planned network of multi-use trails the entire length of it's waterfront. Additional transportation, safety, recreational and educational benefits are summarized below:

#### TRANSPORTATION AND SAFETY BENEFITS

- The pathway will be designed to provide a safe, convenient and accessible pedestrian and bicycle facility. Section 5 of this report provides a detailed description of the design criteria and standards which will be applied to the design and construction of the proposed pathway. This will help ensure the safety of the facility for the potential users to the greatest extent feasible.
- With no sidewalks along the proposed route, this project will attempt to separate pedestrian and bicycle traffic from streets and motorized traffic wherever possible in an effort to reduce the potential for accidents. No motorized vehicles will be allowed on the pathway (except maintenance and security/emergency vehicles).
- Traffic calming measures will be proposed to create a safer environment around the area beach clubs.
- The project will provide a safe and convenient transportation alternative to the automobile for recreational, and possibly commuting use of bicycles within the project area.



**1 PROJECT LOCATION MAP**  
SCALE: NTS

**TOWN OF EVANS MULTI-USE PATHWAY**  
TOWN OF EVANS, NEW YORK

PROJ. No. 2589-19  
1/8/03



## RECREATIONAL BENEFITS

- Increased and improved public access to the Town's cultural resources and waterfront recreation areas.
- Encouragement of and increased opportunity for walking, cross country skiing, jogging and bicycling with resulting health benefits of these activities.
- Full accessibility for physically challenged individuals.

## EDUCATIONAL BENEFITS

- Several locations throughout the project area will be explored that could contain educational displays and maps providing historical, cultural and environmental information.

## PUBLIC INFORMATION MEETINGS

A series of small group design workshops were held at the outset to encourage public participation in the project. These workshops were structured to both educate the attending groups on the benefits of multi-use pathways and to present the vision for this particular project. Most importantly, these groups were encouraged to identify their own concerns, goals and objectives regarding the design of the pathway.

With a Concept Plan prepared, a Public Information Meeting was held to gather support for the project and to receive comment on the preferred pathway route, possible alternative routes and the anticipated project financing. *Information from all of these meetings are included in the Appendix of this report.*

## KEY DESIGN AND COORDINATION ISSUES

- Prior to phased construction, review and approval of the preferred route for all sections of the pathway at a design development level. During this phase, some sections may warrant further study of more than one option for consideration.
- Identify all easements or acquisitions required for construction of the preferred route. Final determination to occur during the design development phase.
- Secure preliminary approvals of concept designs from appropriate agencies that have jurisdiction over pathway design and construction, particularly for bridge locations and environmental issues.
- Obtain preliminary acceptance of liability and maintenance responsibility for pathway sections, bridges and ancillary improvements. All parties involved in

the planning and maintenance of the pathway are concerned with safety and liability issues. This will be a major concern in the design development phases of the project. The detailed pathway design will seek to minimize the potential liability problems to the greatest extent feasible.

- Complete the environmental assessment of the project with all applicable regulatory agencies. Refer to Section 5 of this report for current status of S.E.Q.R. compliance.

## TYPICAL CONDITIONS

The majority of this project will be designed as an off-road multi-use path. These are special use facilities that provide physical separation from motorized traffic. In general, these paths are intended to supplement the roadway network and often provide access to otherwise inaccessible areas. In this project, they will primarily be utilized within the public right-of-way parallel to the roadway. Pavement width will be 8 feet to allow for two-way traffic.

In some areas of this project, extended paved shoulders on both sides of the road will be recommended. Paved shoulders are not part of the motor vehicle travel lane and are separated from it by an edge stripe. When these facilities are part of a designated bike route, parking should be prohibited on the shoulders except in the event of emergency. Paved shoulder width will be 5 feet along both sides of the road.

Illustrations of both of these pathway options are provided on the following pages. It should be noted that included among both of these treatments is bicycle route signage that is designed to alert motorists of increased bicycling activity and to designate specific bicycle routes.

## MAINTENANCE

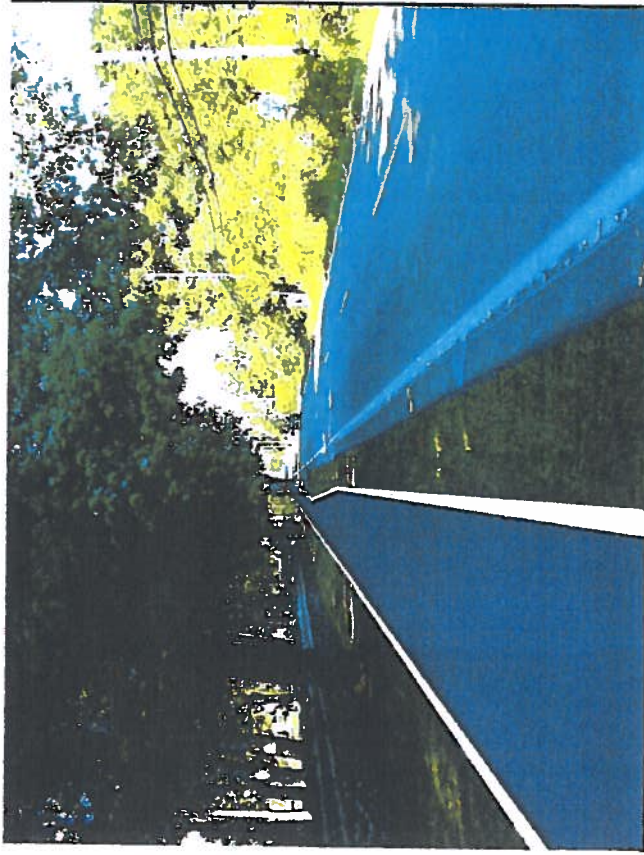
The jurisdiction responsible for the maintenance of the planned pathway facilities (Town of Evans or Erie County) should be established prior to construction. In addition, the annual costs of maintaining these facilities has to be budgeted for. Neglecting routine maintenance will eventually create pathways that are undesirable, unsafe and a source of increased liability.

Broken glass, sand, litter and fallen leaves often accumulate on multi-use pathways. Therefore, as a minimum, regular maintenance should be provided to sweep away this debris. If the pathway is to be cleared of snow, then this should be done by plowing. De-icing agents and abrasives can damage bicycles and create potentially unsafe conditions. Maintenance inspections focusing on pavement repairs and overgrown vegetation should be conducted annually.

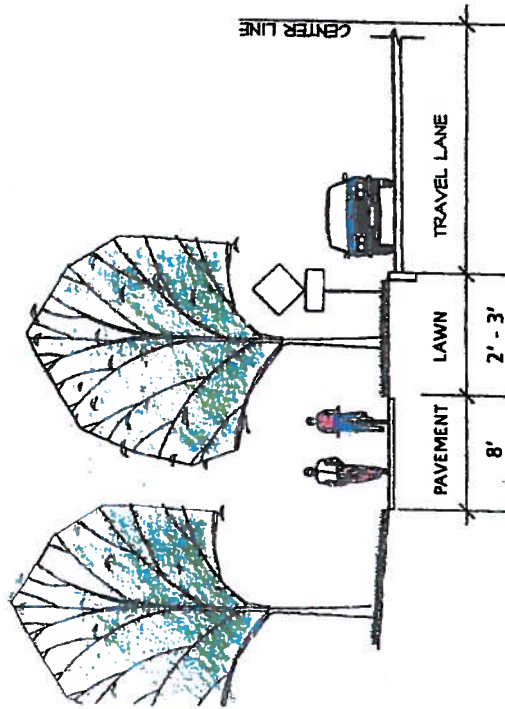
Additionally, some communities have initiated "adopt-a-trail" programs where civic groups take responsibility for some routine maintenance. These responsibilities should be clearly spelled out for any interested organization.



EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



**OFF-ROAD MULTI-USE PATH**

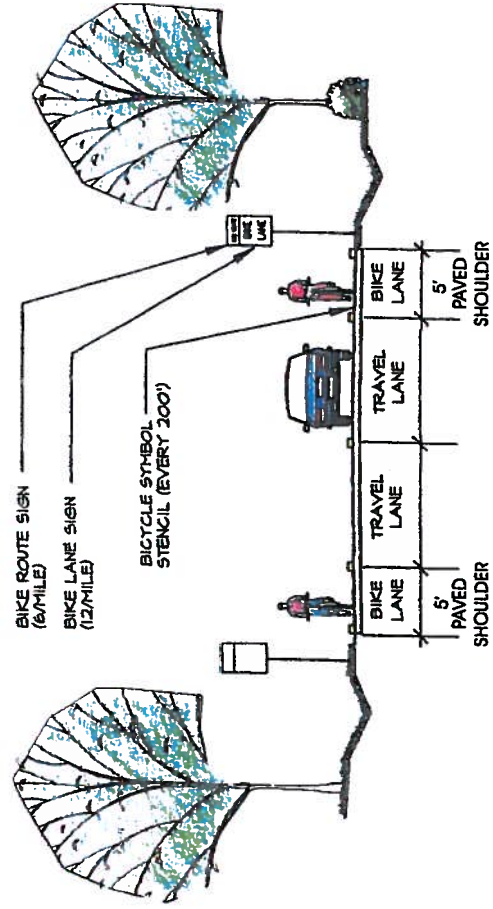




EXISTING CONDITIONS



PROPOSED IMPROVEMENTS



## **DESCRIPTION OF PATHWAY ALTERNATIVES**

As described earlier, the intended pathway route is from Eighteen Mile Creek (at the Town of Hamburg line) south along Old Lake Shore Road to Evangola State Park with spurs on Sturgeon Point Road and Lake Street. For planning purposes, this corridor has been broken down into a series of separate sections. Based on the analysis of various factors, including capital costs, maintenance costs, constructability, ownership, terrain, security, use conflicts, accessibility and safety options, a preferred overall route is recommended for each section. These recommendations may be refined in the design development phase.

Master Concept Plans for the entire planned Town of Evans Multi-Use Pathway have been provided on the following pages for reference. The individual pathway sections and various options are then summarized in detail. Section maps and supplemental cross-section drawings are included with each pathway section description.

Estimated construction costs are included with the description of each pathway option. A discussion of the methodology used to develop the cost estimates and a table summary of the estimated cost of the preferred route is included in Section 3.





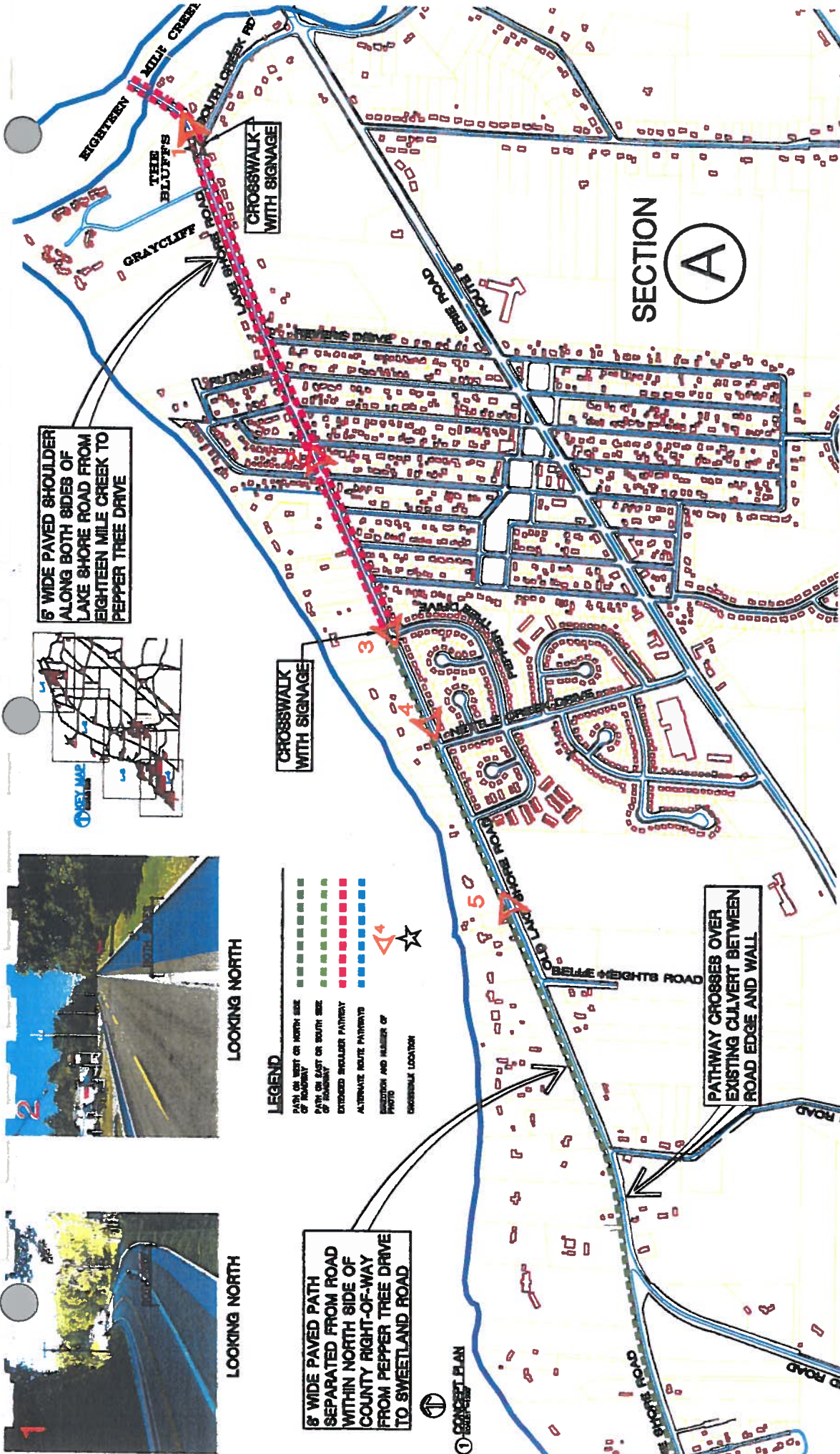
LOOKING NORTH



LOOKING NORTH



15' WIDE PAVED SHOULDER  
ALONG BOTH SIDES OF  
LAKE SHORE ROAD FROM  
EIGHTEEN MILE CREEK TO  
PEPPER TREE DRIVE



LEGEND

- PATH ON WEST OR NORTH SIDE
- PATH ON EAST OR SOUTH SIDE
- EXTENDED SHOULDER PATHWAY
- ALTERNATE ROUTE PATHWAYS
- STATIONING AND NUMBER OF PHOTO CROSSWALK LOCATIONS

1 CONCEPT PLAN

SECTION A



LOOKING SOUTH

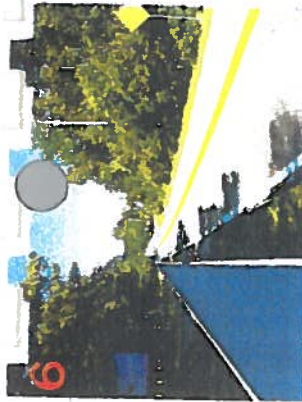


LOOKING SOUTH

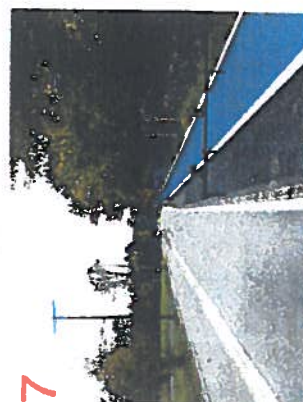


LOOKING NORTH





LOOKING NORTH



LOOKING SOUTH



LOOKING EAST

8' WIDE PAVED PATH  
SEPARATED FROM ROAD  
WITHIN WEST SIDE OF  
COUNTY RIGHT-OF-WAY  
FROM SHELL ROAD TO  
BENNETT BEACH

SECTION C

SEPARATE BRIDGE  
FOR PATHWAY  
CROSSING

CROSSWALK  
WITH SIGNAGE



1 CONCEPT PLAN  
SCALE 1"=40'



8' W  
1/4 SEC  
SEPARATED FROM ROAD  
WITHIN NORTH AND WEST  
SIDE OF COUNTY  
RIGHT-OF-WAY FROM  
SWEETLAND ROAD TO  
STURGEON POINT ROAD

STURGEON POINT WATER  
TREATMENT PLANT

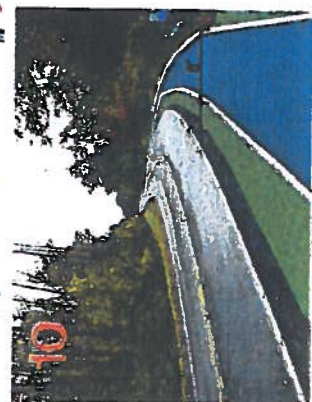
SEWER COUNTY  
WATER  
ADAPTMENT

SECTION A

CROSSWALK  
WITH SIGNAGE

8' WIDE PAVED PATH  
SEPARATED FROM ROAD  
WITHIN WEST SIDE OF  
COUNTY RIGHT-OF-WAY  
FROM STURGEON POINT  
ROAD TO WENDT BEACH

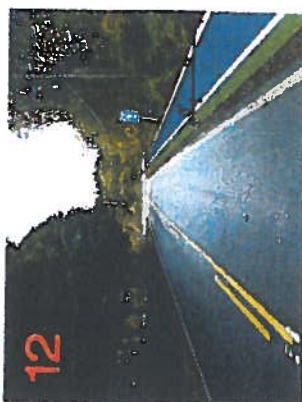
8' WIDE OFF ROAD  
PAVED PATH THROUGH  
SOUTHEAST CORNER OF  
WENDT BEACH PARK



LOOKING SOUTH



LOOKING SOUTH



LOOKING SOUTH



LOOKING WEST





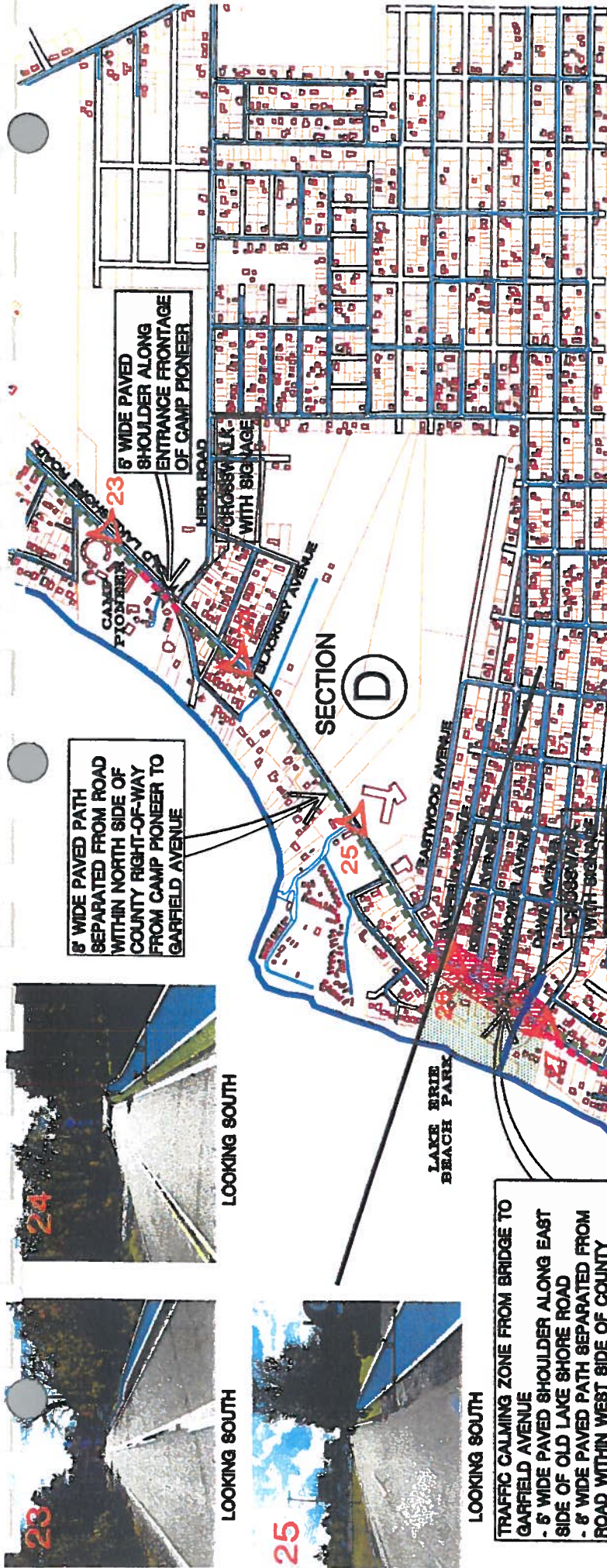




LOOKING SOUTH



LOOKING SOUTH



LOOKING SOUTH

TRAFFIC CALMING ZONE FROM BRIDGE TO  
GARFIELD AVENUE  
- 6' WIDE PAVED SHOULDER ALONG EAST  
SIDE OF OLD LAKE SHORE ROAD  
- 6' WIDE PAVED PATH SEPARATED FROM  
ROAD WITHIN WEST SIDE OF COUNTY  
RIGHT-OF-WAY

6' WIDE PAVED PATH  
SEPARATED FROM ROAD  
WITHIN EAST SIDE OF  
COUNTY RIGHT-OF-WAY  
FROM BRIDGE TO  
LANCASTER AVENUE



LOOKING SOUTH



LOOKING SOUTH



LOOKING NORTH



1 CONCEPT PLAN  
SCALE: 1" = 120'

TOWN OF EVANS MULTI-USE PATHWAY  
TOWN OF EVANS, NEW YORK

WENDEL DUCHONCHER  
ARCHITECT

PROJ. No. 2569-19  
1/1/03



## **Section A     Eighteen Mile Creek to Sturgeon Point Road**

OPTION A-1: From the south end of the bridge crossing Eighteen Mile Creek, provide a 5 foot wide paved shoulder along both sides of Old Lake Shore Road south to Pepper Tree Drive (see cross section that follows). Provide crosswalk with signage at both the South Creek Road and Pepper Tree Drive intersections. South from Pepper Tree Drive, the pathway will be an 8 foot wide pavement separated from the road within the north or west side of the County right-of-way (see cross section that follows). This treatment will continue south to Sturgeon Point Road. In the vicinity of Delamater Road, the proposed pathway location crosses over an existing culvert and concrete head wall that will have to be extended (see cross section that follows).

**Estimated Cost: \$1,500,000**

OPTION A-2: From the southeast corner of the South Creek Road intersection, provide an 8 foot wide pavement separated from the road within the south or east side of the County right-of-way. This treatment would continue south to Pepper Tree Drive. Remaining pathway segments would remain as described in Option A-1.

**Estimated Cost: \$1,600,000**

COMMENTS: Although Option A-2 would be the ideal alignment given the rather generous right-of-way in the South Creek Road to Pepper Tree Drive area, the residents of Highland-on-the-Lake were extremely vocal in their sentiment against this option. Option A-1 as described does allow pathway facilities to cross directly in front of Graycliff and potential trailhead development in this area. Therefore, the preferred option is A-1.

# LEGEND

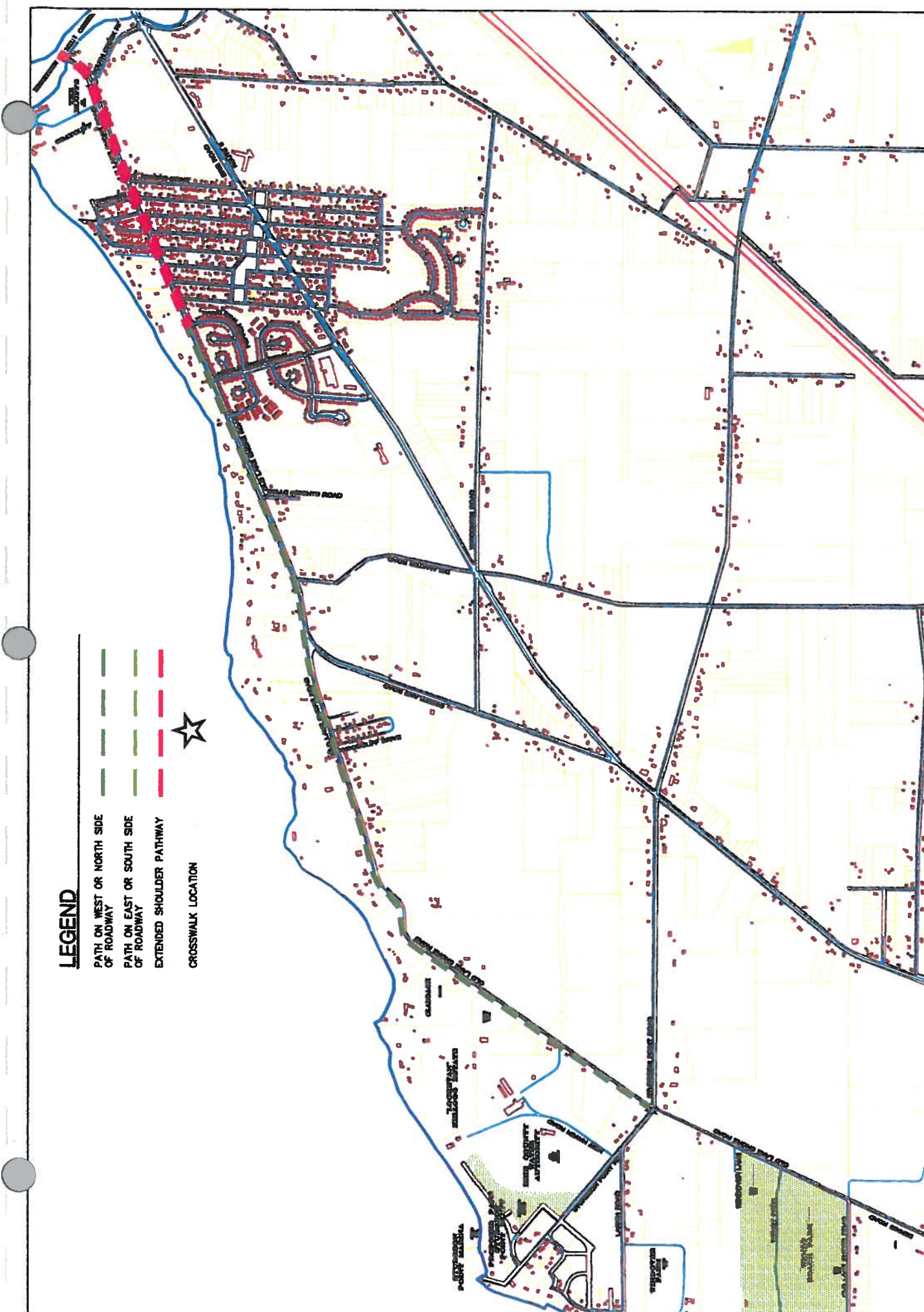
PATH ON WEST OR NORTH SIDE  
OF ROADWAY

PATH ON EAST OR SOUTH SIDE  
OF ROADWAY

EXTENDED SHOULDER PATHWAY



CROSSWALK LOCATION

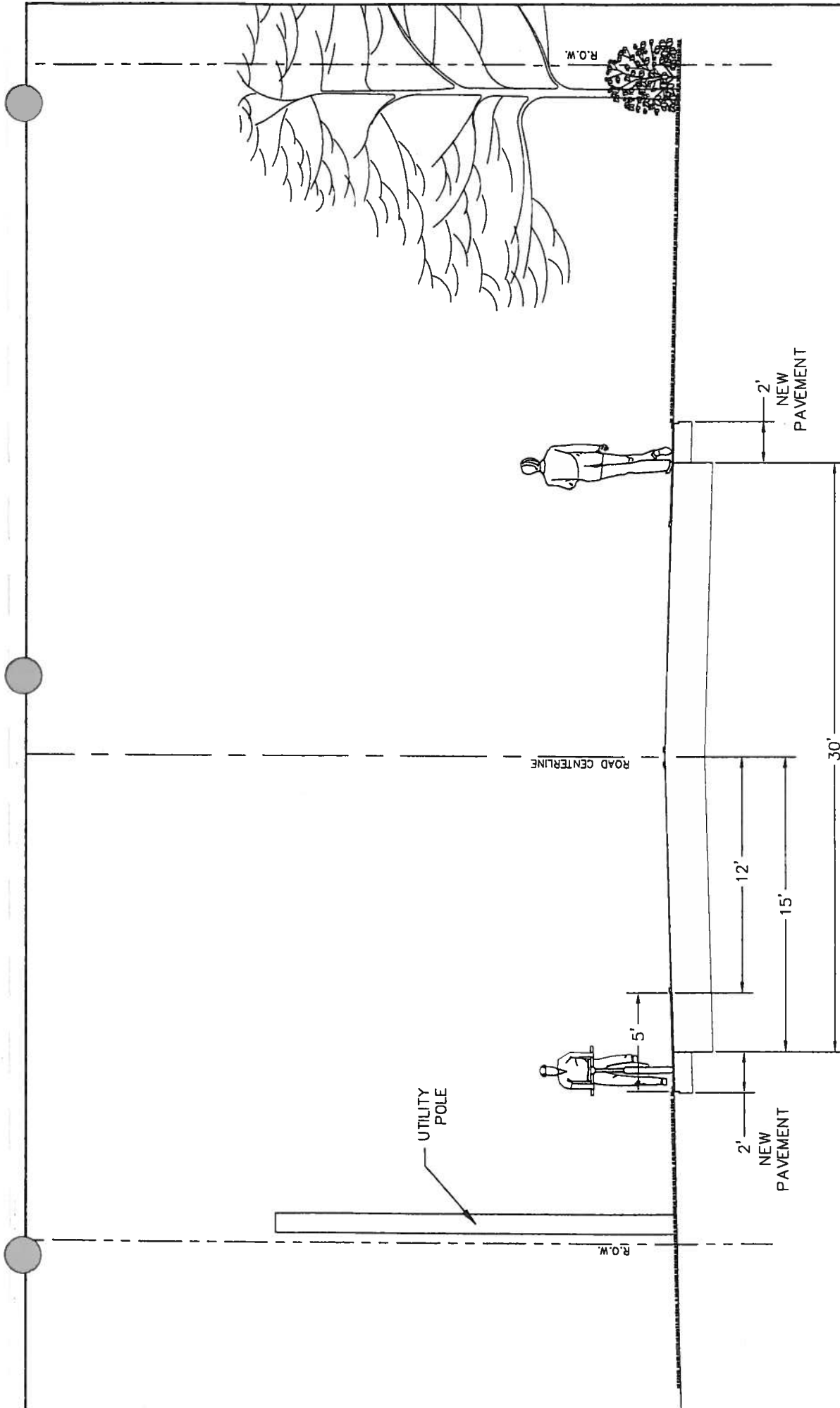


SECTION A  
SCALE 1"=220'

WENDEL DUCHESCHER  
ARCHITECTS

TOWN OF EVANS MULTI-USE PATHWAY  
TOWN OF EVANS, NEW YORK

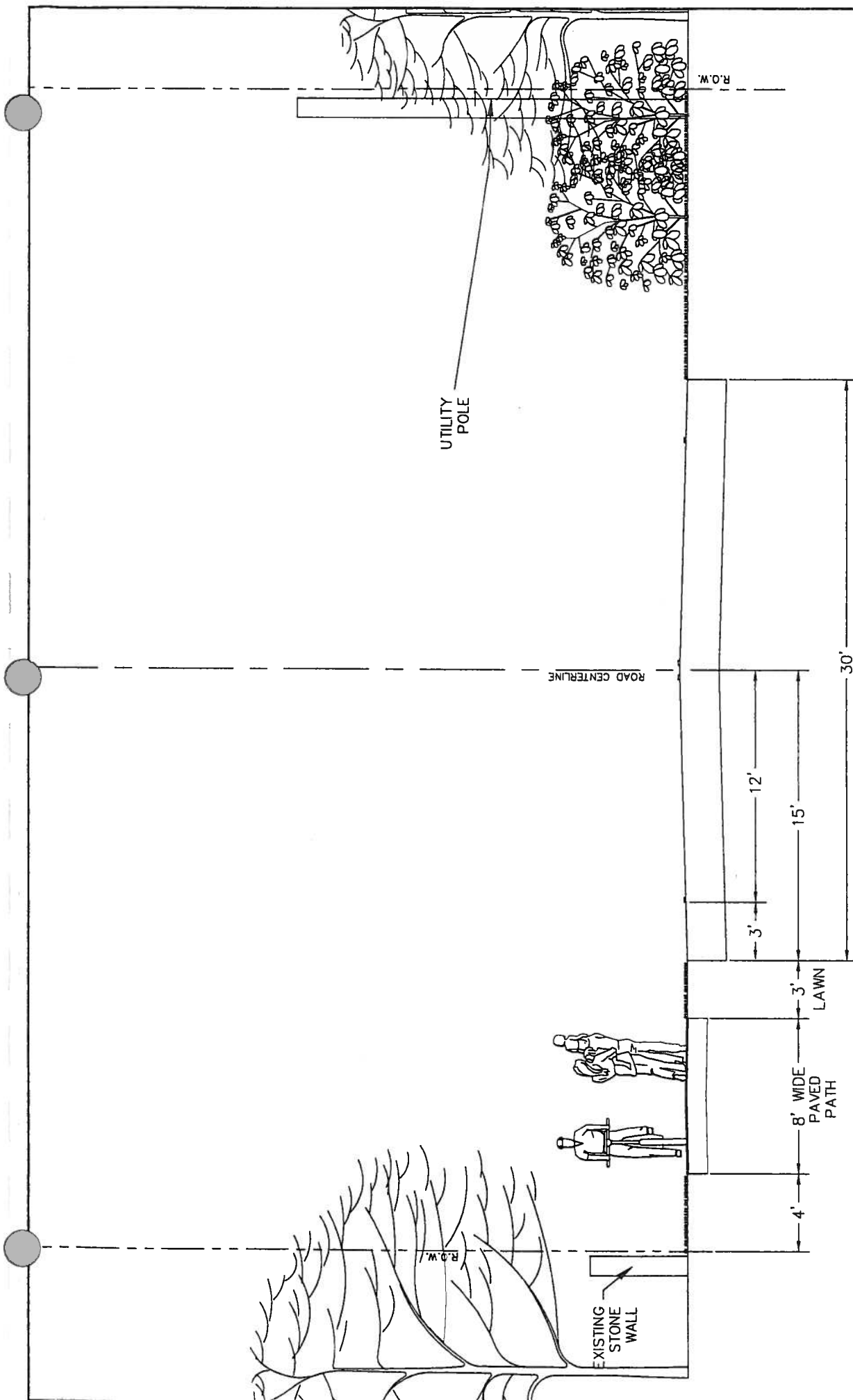
PROJ. No. 2589-19  
1/21/03  
BAPF



**TYPICAL CROSS-SECTION LOOKING  
NORTH BETWEEN EIGHTEEN MILE  
CREEK AND PEPPERTREE DRIVE**

NOTE:  
• DIMENSIONS ARE APPROXIMATE

**SECTION A**



**TYPICAL CROSS-SECTION LOOKING  
NORTH BETWEEN SWEETLAND ROAD  
AND STURGEON POINT ROAD**

NOTE:  
\* DIMENSIONS ARE APPROXIMATE

**SECTION A**





## SECTION A

**TOWN OF EVANS MULTI-USE PATHWAY**  
**TOWN OF EVANS, NEW YORK**

**WENDEL**  
 **DUCHSCHERER**  
**ARCHITECTS & ENGINEERS**

PROJ. No. 2589-19  
03/03/03

## Section B Sturgeon Point to Wendt Beach

OPTION B-1: From the Sturgeon Point Marina , provide an 8 foot wide pavement separated from the road within the north or east side of the County right-of-way. This pathway segment will tie into the entrance of the future Sturgeon Point Bluff Park and capitalize on the generous amount of space available within the right-of-way adjacent to the Erie County Water Authority. Provide a crosswalk with signage at the Sturgeon Point Road and Old Lake Shore Road intersection. Continue the 8 foot wide pavement separated from the Old Lake Shore Road within the west side of the County right-of-way to the entrance of Wendt Beach County Park. Erie County has recently completed a Master Plan for Wendt Beach that includes the provision for a multi-use connector trail inside the park that would link the Northeast corner of the park with the Old Lake Shore Road and Shell Road intersection.

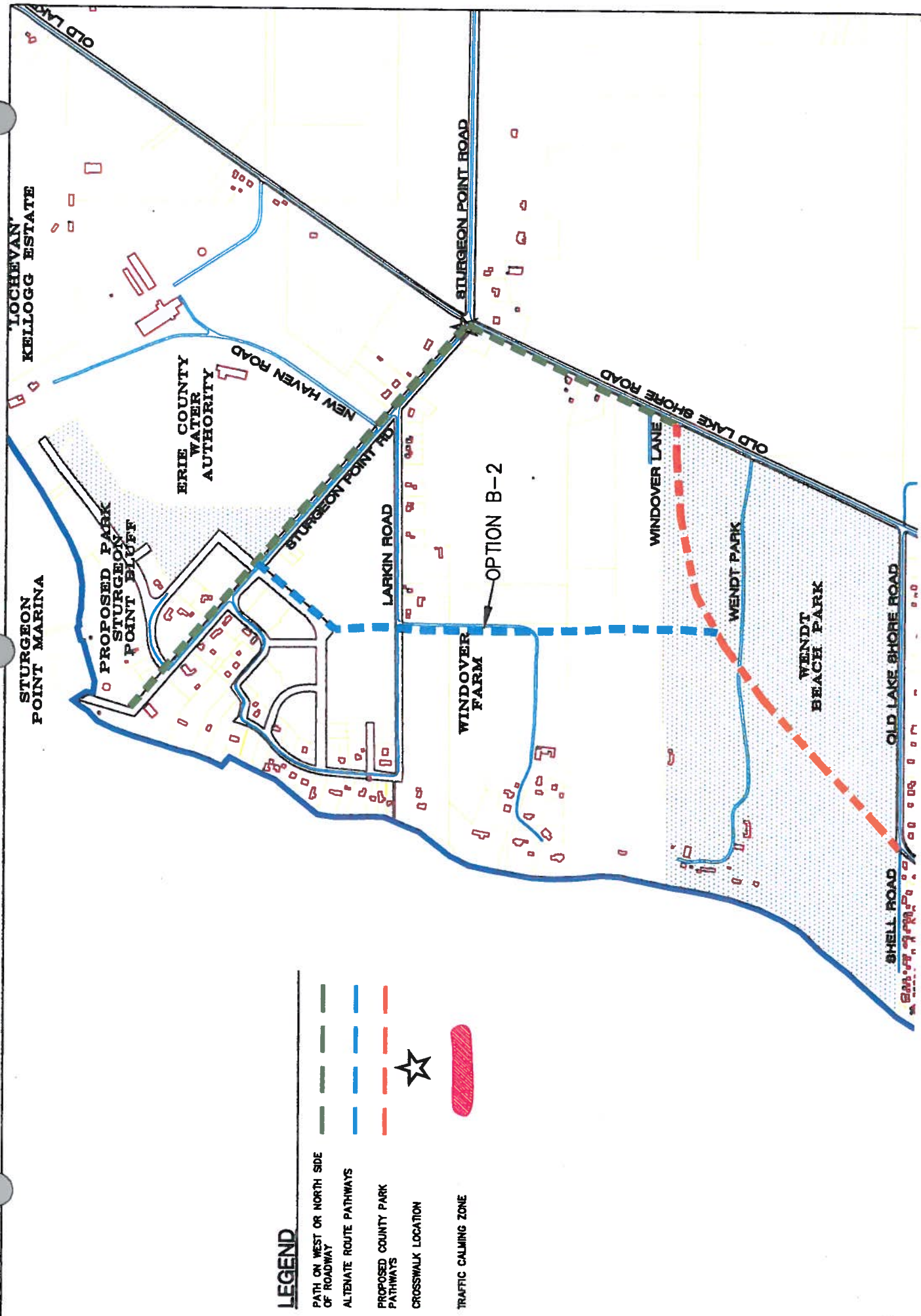
Estimated Cost: \$700,000

OPTION B-2: From the north side of Wendt Beach, an 8 foot wide off-road pathway would traverse the Windover Lane development (Peter Hunt) in a northerly direction. Mr. Hunt has been contacted regarding a potential acquisition of easement for the pathway and remains open to the concept if the adjacent property owners in the development are not opposed to the idea. The off-road pathway would continue north through Windover Farm, cross Larkin Road, follow a reputed utility easement and terminate at the entrance to the future Sturgeon Point Bluff Park.

Estimated Cost: \$650,000

OPTION B-3: It should be noted that prior to the unfortunate events of September 11, 2001, another off-road pathway option was being pursued that branched off of the Old Lake Shore Road near the 'Lochevan' estate (Stephen Kellogg) and continued around the northern perimeter of the Erie County Water Authority (ECSA) into the new park on the bluffs. Both parties were entertaining the pathway proposals when our nation came under terrorist attack. From that point onward, the ECSA discontinued negotiations as they are now in a position where they have to spend money to secure their perimeter rather than encourage access to it. No cost opinions were prepared for this option.

COMMENTS: Although Option B-2 would be an ideal way to get the pathway closer to the waterfront and increase the amount of off-road facilities in the system, the owners of Windover Farm have refused permission to allow the pathway to go down their entrance drive at Larkin Road. With the situation described above at the ECSA, there is only one viable option to pursue at this time. Therefore, the preferred option is B-1.



**LEGEND**

- PATH ON WEST OR NORTH SIDE OF ROADWAY (Solid Green Line)
- ALTERNATE ROUTE PATHWAYS (Dashed Blue Line)
- PROPOSED COUNTY PARK PATHWAYS (Dashed Red Line)
- CROSSWALK LOCATION (Star Symbol)
- TRAFFIC CALMING ZONE (Red Hatched Rectangle)

## Section C     Wendt Beach to Evans Town Park

OPTION C-1: From the intersection of Old Lake Shore Road and Shell Road, the pathway heading south to Bennett Beach County Park will consist of an 8 foot wide pavement located within the west side of the County right-of-way (see cross section that follows). This area would include the nicely shaded area in front of Cradle Beach Camp and a new pedestrian/bicycle bridge over Little Sister Creek. Similar to Wendt Beach, the new County master plan for Bennett Beach provides for an off-road pathway loop across the front of the park. This loop would have to tie back into the dual paved shoulder concept at the bridge crossing Big Sister Creek (see cross section that follows). A crosswalk with signage will be provided at Schwert Road where the pathway turns back into an 8 foot pavement separated from the road. This will occur within the east side of the County right-of-way all the way south to the Lake Street intersection (see cross section that follows). The realignment of this intersection is currently being studied by Erie County, a study that has been made necessary by the need to replace the bridge over Delaware Creek (see Appendix for intersection realignment sketch). Immediately south of the bridge, a traffic calming zone has been proposed that is intended to make the busy area in front of the commercial establishments a safer place for both pedestrians and motorists (see Concept Plan on page 10).

Estimated Cost: \$1,000,000

OPTION C-2: The Purvis Landing property has been designated as a potential location for a trail head development. A crosswalk with signage will be provided along with bicycle racks, benches and landscaping.

Estimated Cost: \$90,000

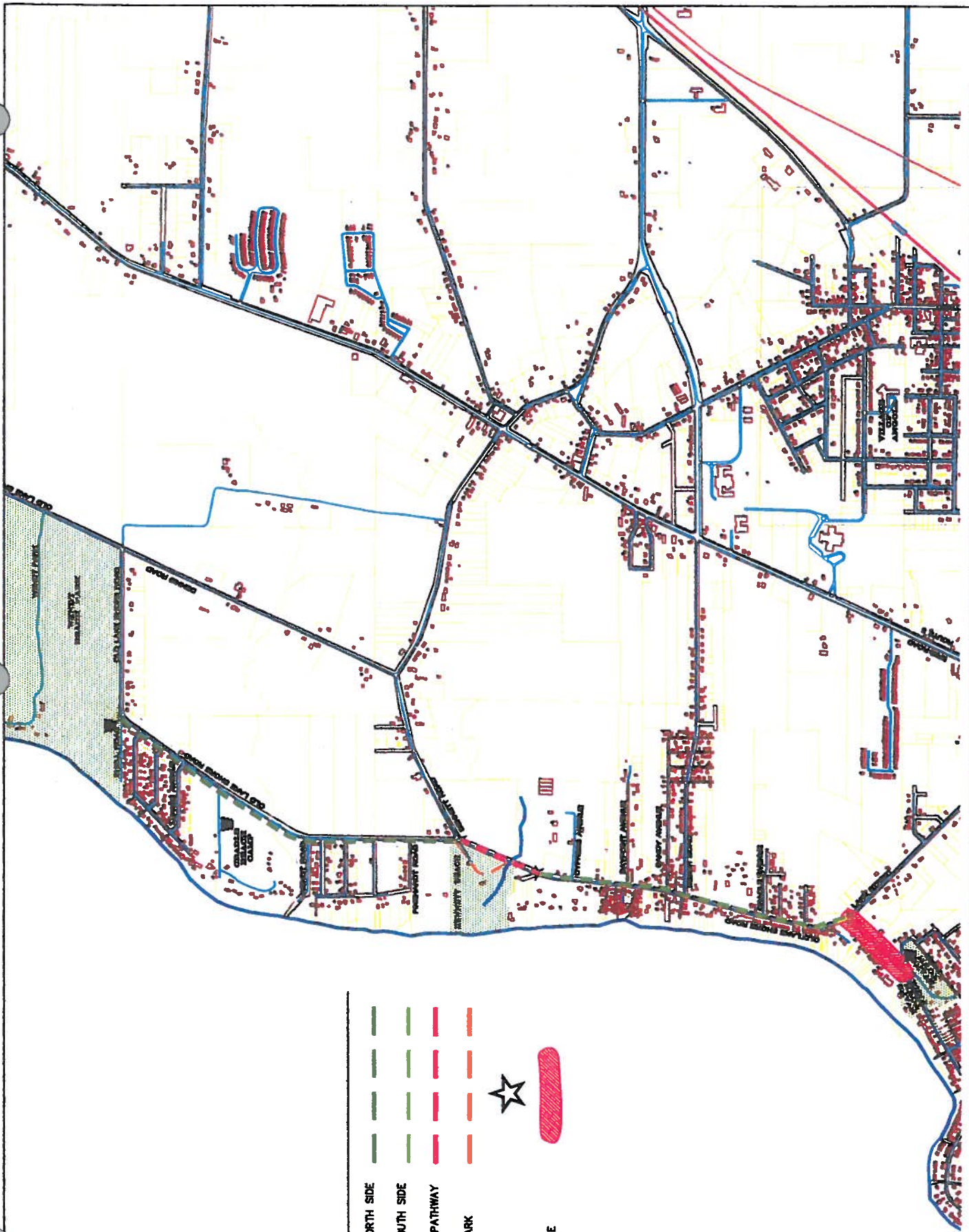
OPTION C-3: The Erie County Sewer Authority is planning on upgrading the force main that is located on the east side of Old Lake Shore Road in the vicinity of the pathway project. While some of this sewer main is located within the County highway right-of-way, and will require close coordination with the pathway construction, a significant portion of the sewer reconstruction is slated to occur in permanent easements further to the east of the roadway (from Beach Road south to Lake Street). A request to possibly utilize these easements for the pathway has been made but has yet to be authorized. Therefore, no cost opinion has been prepared for this option.

COMMENTS: Given the current uncertainty that accompanies Option C-3, Option C-1 is the only valid pathway concept to pursue. Option C-2 can be developed independently from either pathway concept. Therefore, the preferred option is C-1.

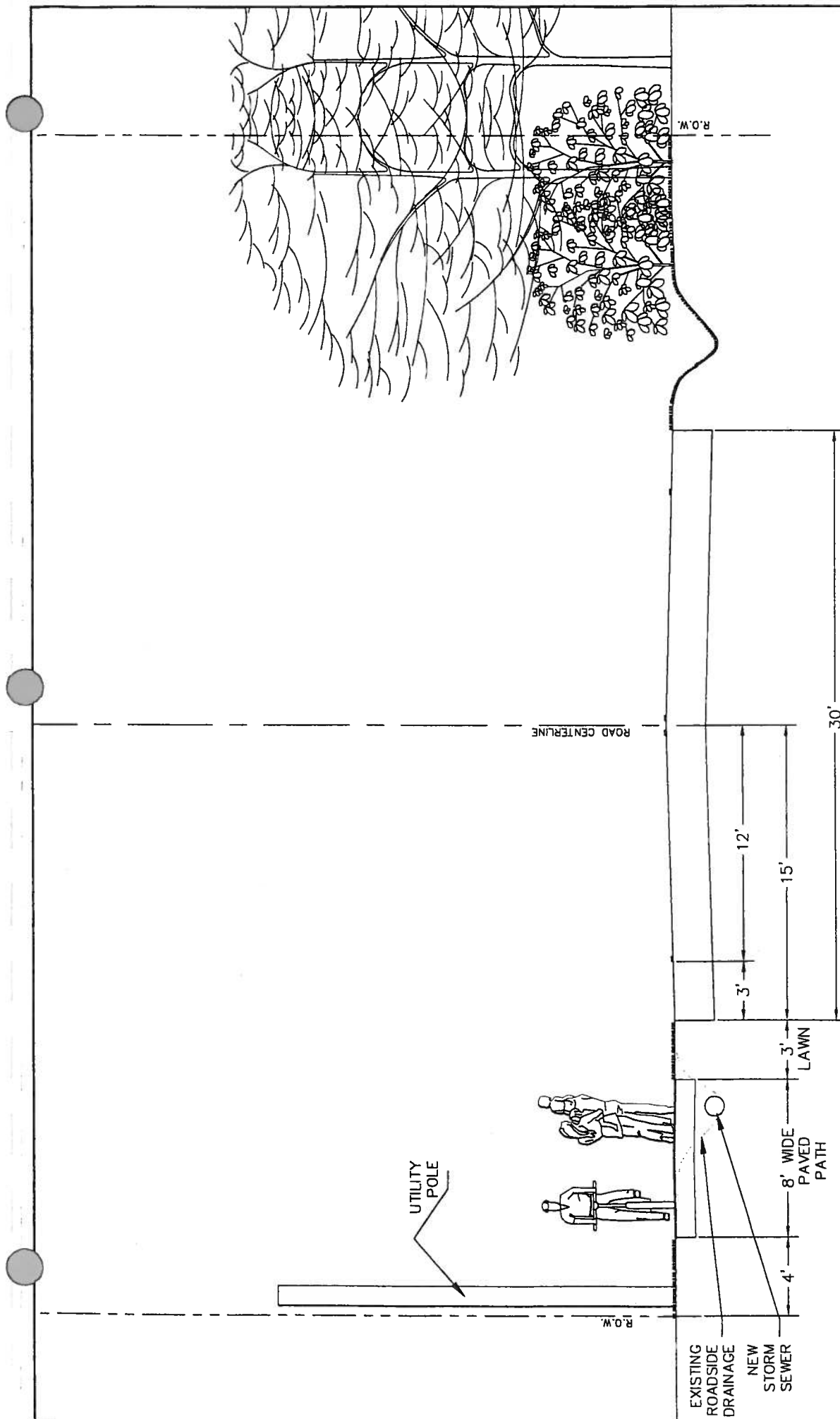


# LEGEND

-  PATH ON WEST OR NORTH SIDE OF ROADWAY
-  PATH ON EAST OR SOUTH SIDE OF ROADWAY
-  EXTENDED SHOULDER PATHWAY
-  PROPOSED COUNTY PARK PATHWAYS
-  CROSSWALK LOCATION
-  TRAFFIC CALMING ZONE



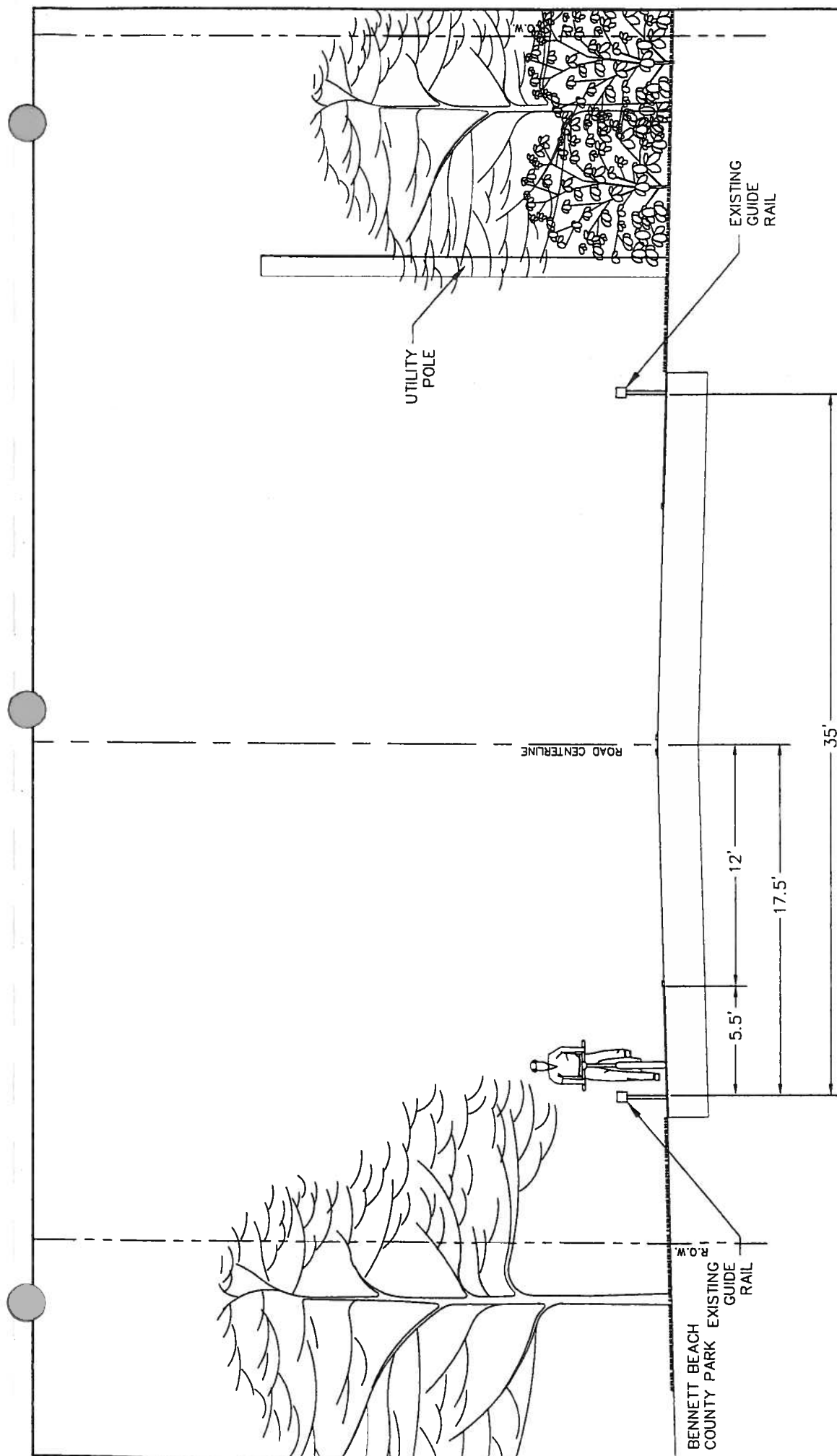




# TYPICAL CROSS-SECTION LOOKING NORTH BETWEEN WENDT BEACH AND BENNETT BEACH

NOTE:  
• DIMENSIONS ARE APPROXIMATE

## SECTION C

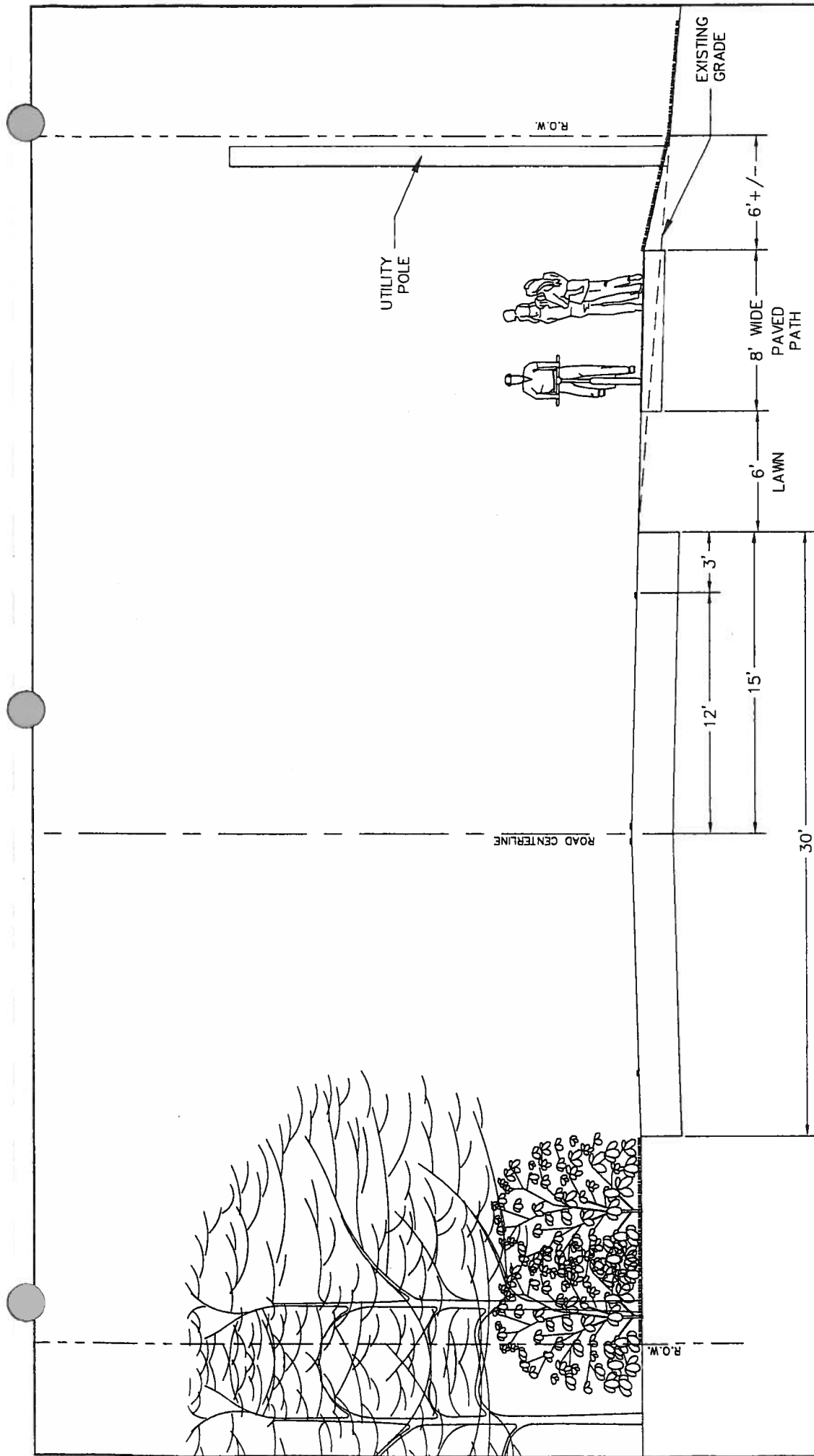


**TYPICAL CROSS-SECTION LOOKING NORTH  
AT BRIDGE OVER BIG SISTER CREEK**

NOTE:  
• DIMENSIONS ARE APPROXIMATE

**SECTION C**

**TOWN OF EVANS MULTI-USE PATHWAY**  
TOWN OF EVANS, NEW YORK



**TYPICAL CROSS-SECTION LOOKING NORTH  
BETWEEN BENNETT BEACH AND LAKE STREET**

NOTE.

\* DIMENSIONS ARE APPROXIMATE

**SECTION C**

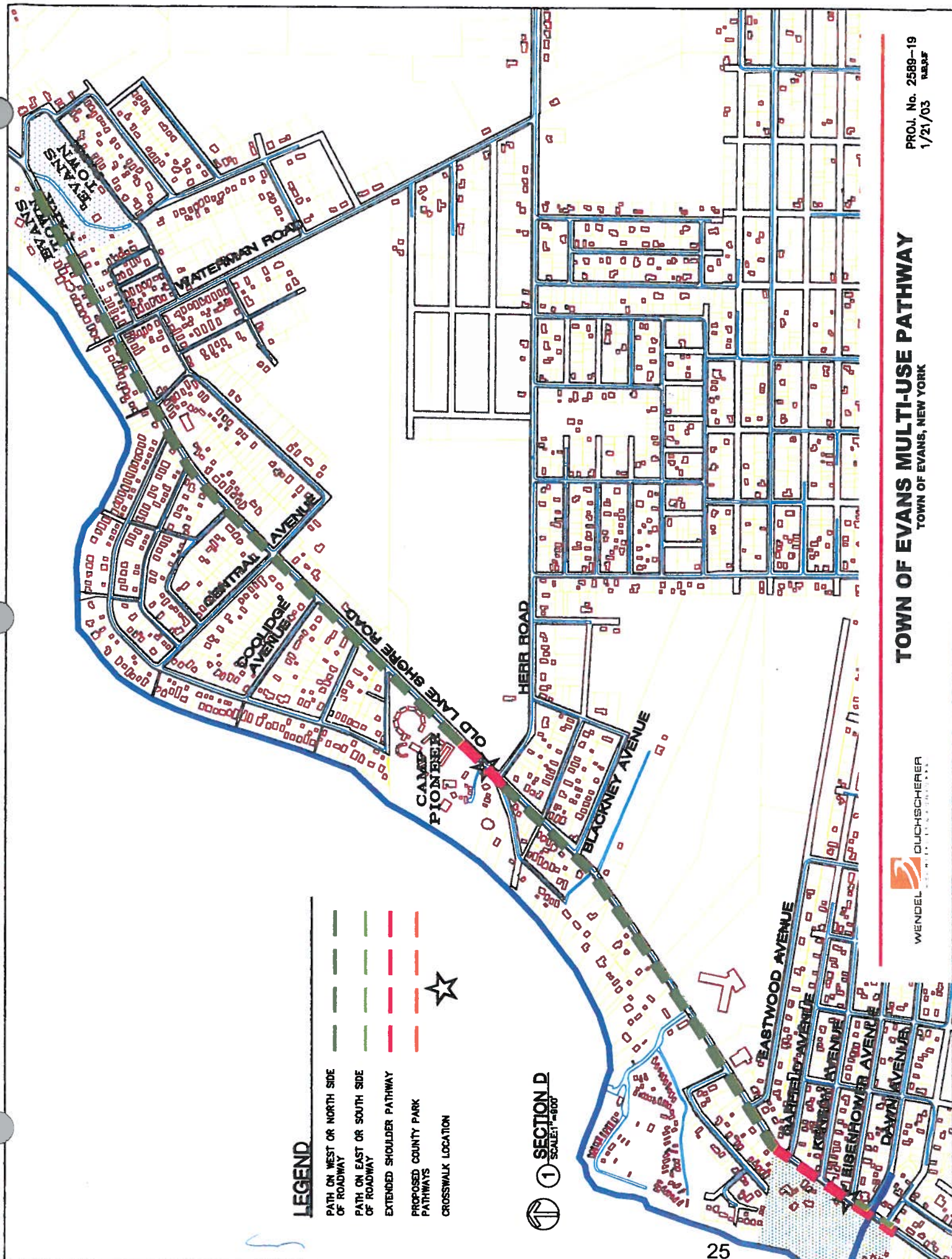
**TOWN OF EVANS MULTI-USE PATHWAY**  
TOWN OF EVANS, NEW YORK

## Section D    Evans Town Park to Point Breeze

OPTION D-1: South of the traffic calming zone near the Town Park, the pathway will be an 8 foot wide pavement separated from the road within the west side of the County right-of-way. This concept will be carried all the way to Garfield Avenue in Point Breeze. From that point south past Lake Erie Beach Park to the bridge over Muddy Creek, another traffic calming zone has been proposed that is similar in concept to the area by Town Park.

Estimated Cost: \$700,000

COMMENTS: Verifying the available right-of-way during the design development phase may result in revisions to which side of the road that the pathway occurs. This is particularly likely immediately south of the Town Park and in front of Camp Pioneer. However, switching sides of the road in these areas would likely only result in relatively minor cost increases for crosswalks and signage. Since the County Sewer project traverses this entire pathway section, terminating at Lake Erie Beach, the final location for the path could be dependent upon the route that the force main replacement project takes. This could possibly allow the pathway proposals to be installed on the back of the sewer project. Therefore, with this flexibility, the preferred option is D-1.



# LEGEND

- PATH ON WEST OR NORTH SIDE OF ROADWAY
- PATH ON EAST OR SOUTH SIDE OF ROADWAY
- EXTENDED SHOULDER PATHWAY
- PROPOSED COUNTY PARK PATHWAYS
- CROSSWALK LOCATION

1 SECTION D  
SCALE: 1"=200'

## TOWN OF EVANS MULTI-USE PATHWAY

TOWN OF EVANS, NEW YORK

PROJ. No. 2588-19  
1/21/03

WENDEL DUCHSCHERER

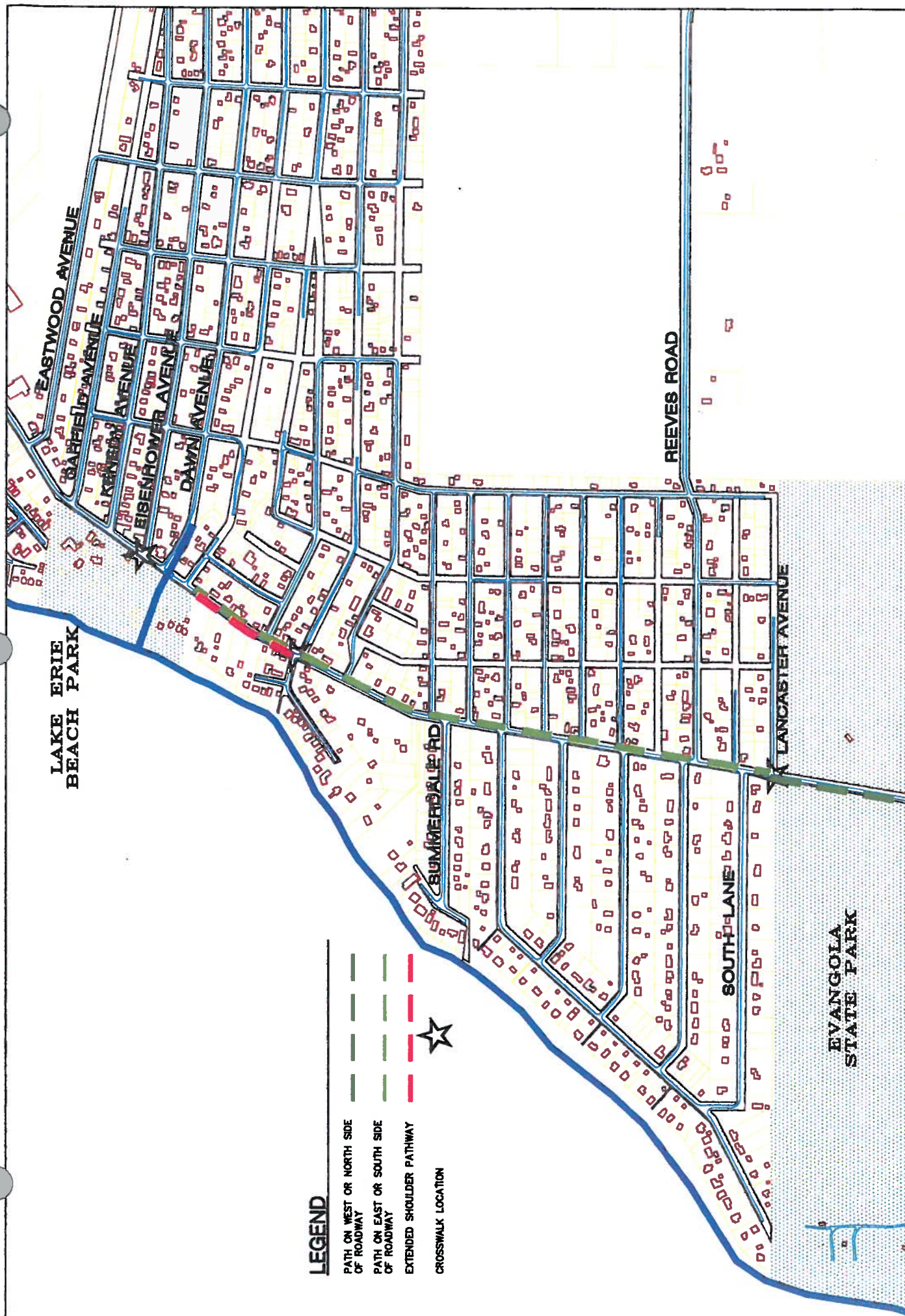


## Section E Point Breeze to Evangola State Park

OPTION E-1: South of the traffic calming zone and bridge crossing at Point Breeze, the pathway will consist of an 8 foot wide pavement separated from the road within the east side of the County right-of-way in tandem with an extended shoulder pavement on the west side of the road (see cross section that follows). A crosswalk with signage will be located where the dual treatment ends. From that point south, the off-road pathway will continue on the east side of the roadway all the way to Lancaster Avenue. Another crosswalk with signage will provide access to the trail system within Evangola State Park (see Appendix for Evangola trail plan).

Estimated Cost: \$300,000

COMMENTS: Right-of-way verification as a part of the design development phase may indicate that a change in side of right-of-way is warranted. However, as discussed earlier, this would have minimal impact on the cost projection. Therefore, the preferred option is E-1.



**LEGEND**

- PATH ON WEST OR NORTH SIDE OF ROADWAY
- PATH ON EAST OR SOUTH SIDE OF ROADWAY
- EXTENDED SHOULDER PATHWAY
- ★ CROSSWALK LOCATION

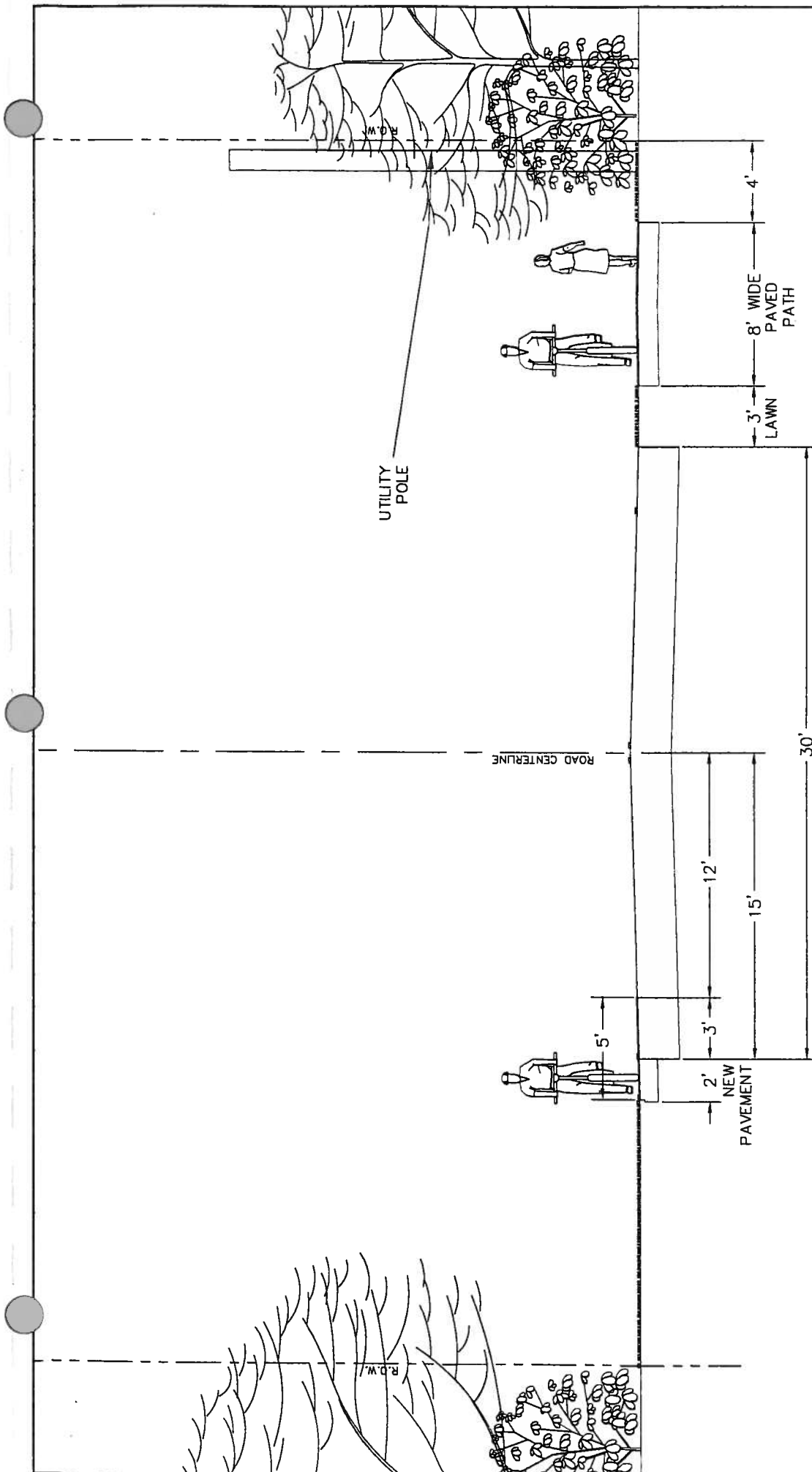


1 SECTION E  
SCALE 1"=600'

WENDEL DUCHSCHERER

**TOWN OF EVANS MULTI-USE PATHWAY**  
TOWN OF EVANS, NEW YORK

PROJ. No. 2589-19  
1/21/03  
RAB



**TYPICAL CROSS-SECTION LOOKING  
NORTH BETWEEN LAKE ERIE BEACH  
PARK AND WEST STERLING DRIVE**

**SECTION E**

NOTE:  
\* DIMENSIONS ARE APPROXIMATE

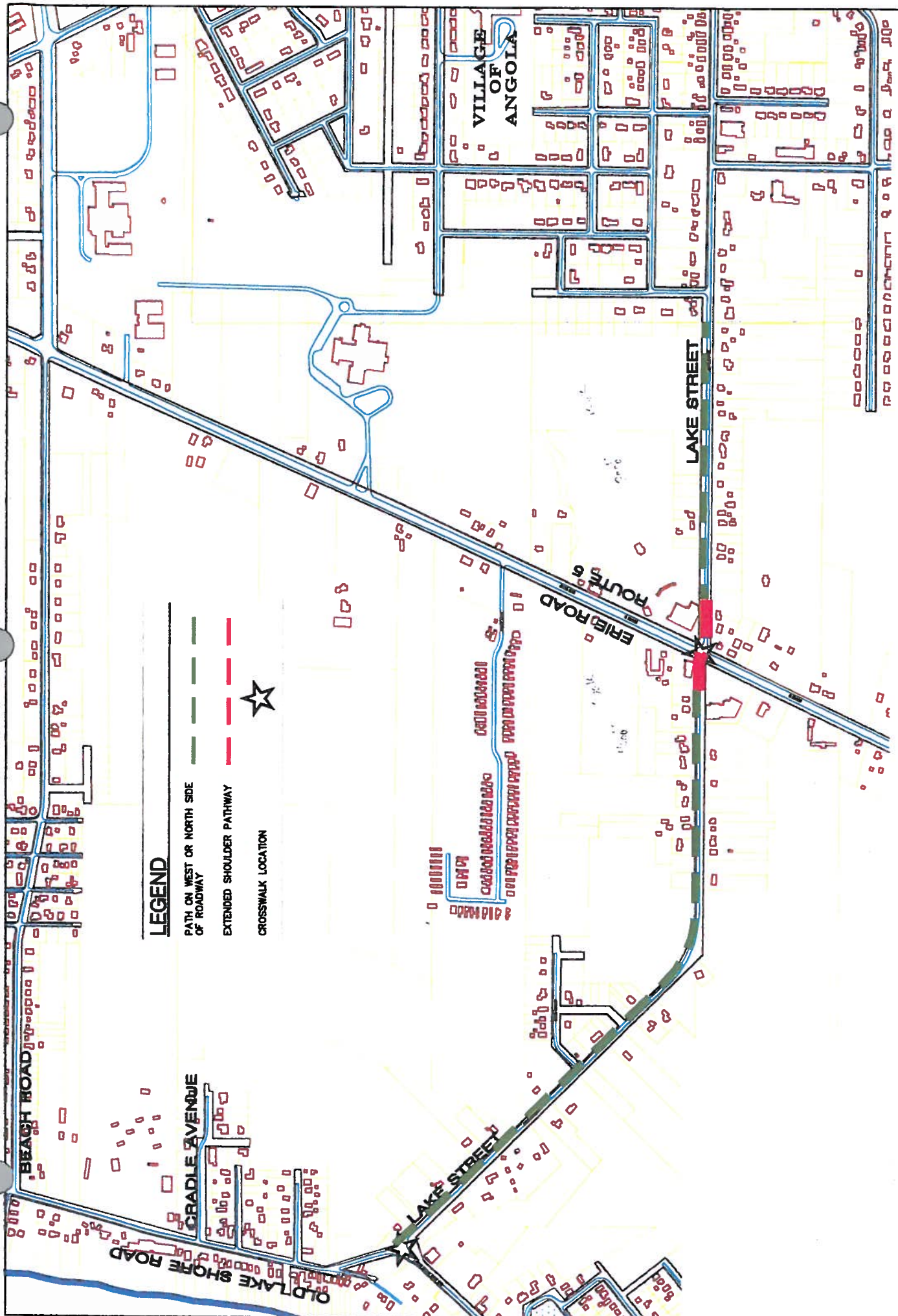
## Section F     Lake Street Spur

OPTION F-1: From the realigned intersection with the Old Lake Shore Road, the pathway will be an 8 foot wide pavement separated from the road within the north side of the Lake Street right-of-way all the way to the Village of Angola line. The lone exception to this concept is a segment of extended shoulder pavement along both sides of Lake Street in the vicinity of the Route 5 intersection.

Estimated Cost: \$500,000

COMMENTS: Analysis of the available right-of-way in this section of the pathway system indicates that this is the most reasonable routing solution. Therefore, the preferred option is F-1.





# **LEGEND**

PATH ON WEST OR NORTH SIDE OF ROADWAY

EXTENDED SHOULDER PATHWAY

CROSSWALK LOCATION



## Recommendations for Phased Development

As indicated on the following Development Phase Map, Section C of the pathway system will be the initial segment planned for construction. The Town of Evans has received grant assistance to implement the pathway recommendations for this location. This central section was chosen for the initial phase of development due to it's ability to connect several popular waterfront amenities (Wendt Beach, Bennett Beach, Cradle Beach, Purvis Landing and Evans Town Park). Being centrally located, it will also allow flexibility in developing future section to either the north, south or east. The following a summary of the recommendations for phased development of he Town of Evans Multi-Use Pathway:

PHASE ONE	Section C	Wendt Beach to Evans Town Park	(2.75 miles)
PHASE TWO	Section B	Wendt Beach to Sturgeon Point	(2.00 miles)
PHASE THREE	Section F	Lake Street Spur	(1.30 miles)
PHASE FOUR	Section D	Evans Town Park to Point Breeze	(2.00 miles)
PHASE FIVE	Section E	Point Breeze to Evangola St. Park	(0.75 miles)
PHASE SIX	Section A	Eighteen Mile Creek to Sturgeon Pt.	(4.25 miles)

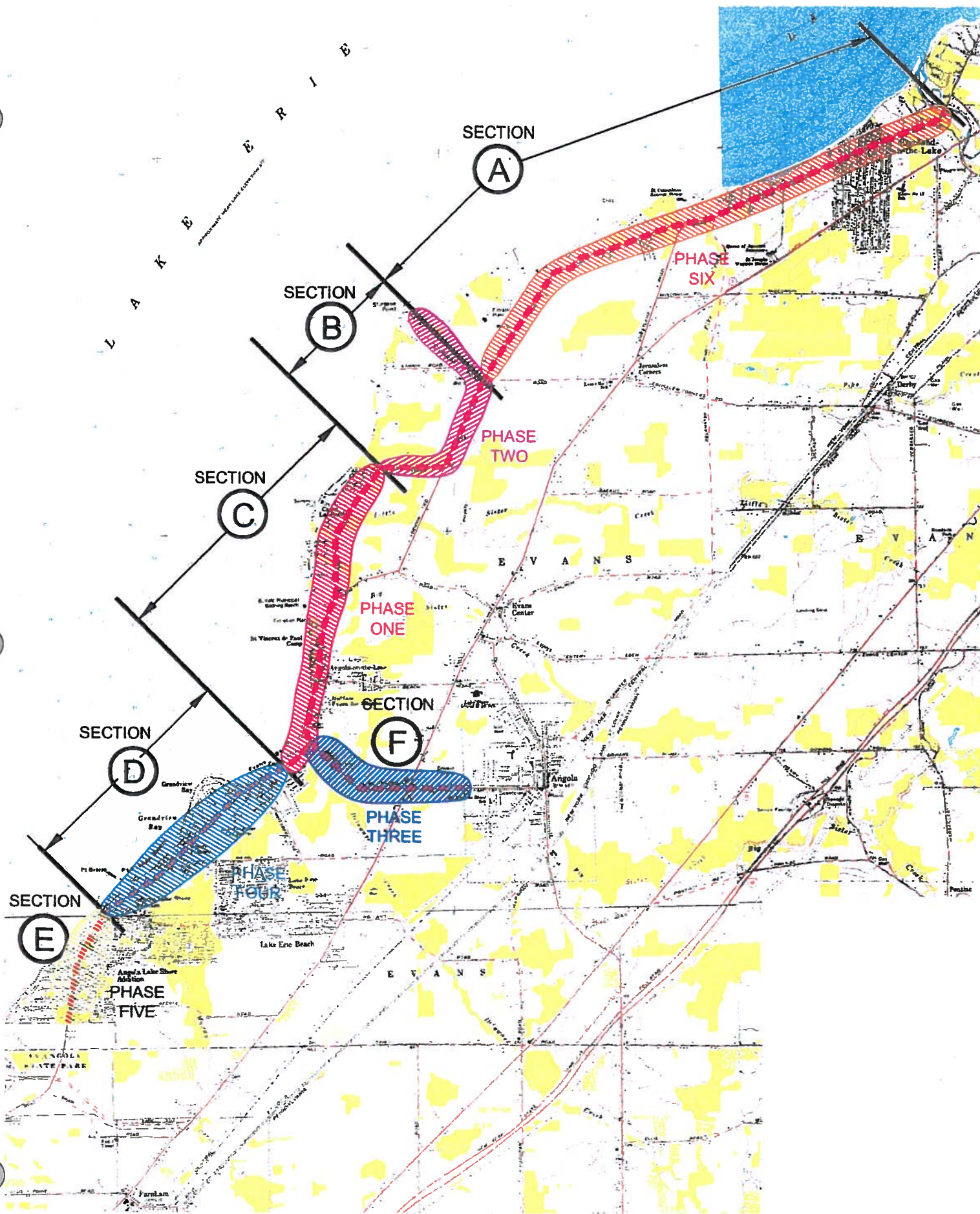
## Schedule

With grant assistance obtained, preparation is underway to construct the Section <sup>C</sup>~~A~~, the initial phase of pathway development. It is expected that construction will begin in the Summer of 2004. Continued coordination with Erie County is required with both their sewer and bridge reconstruction projects.

The Town is currently applying for grant assistance to construct Section <sup>D</sup>~~B~~, the recommended second phase of development. Previous applications for grants to develop Section D have not been successful.

Future development will largely be dependent upon the availability of grant assistance. As a matter of public safety, Section F (Lake Street Spur) will be the next focus for funding.





## BUDGET SUMMARY

At the conceptual design level, two methods for calculating the probable construction costs of the pathway in 2003 dollars were considered while reviewing the preferred alignment and determining the project budget. The methods are described as follows:

1. *Average costs per mile and costs per linear foot.* Over the years, we have analyzed the bid results as well as the accuracy of our own cost estimating data for the multitude of pathway projects this office has been involved with. The averages for projects similar in scope and character to this project are approximately \$400,000 per mile or \$65 per linear foot. These pricing units were applied to the various distances obtained for each of the pathway sections.
2. *Itemized unit costs.* As part of the three grant applications that have been prepared in conjunction with this project, itemized opinions of probable construction costs were prepared (see Appendix for these cost opinions).

A comparison of the two methods indicates that the average costs per mile and per linear foot were very reliable indicators of probable construction cost.

A budget summary of the preferred route options follows. Please note that this is a construction budget only and does not include legal, administrative, design and engineering costs. A 20% contingency is included.

SECTION A		
Eighteen Mile Creek to Sturgeon Point Road	4.25 miles	\$1,500,000
SECTION B		
Sturgeon Point to Wendt Beach	2.00 miles	\$ 700,000
SECTION C		
Wendt Beach to Evans Town Park	2.75 miles	\$1,000,000
SECTION D		
Evans Town Park to Point Breeze	2.00 miles	\$ 700,000
SECTION E		
Point Breeze to Evangola State Park	0.75 miles	\$ 300,000
SECTION F		
Lake Street Spur	1.30 miles	\$ 500,000
<hr/>		
Totals:	13.05 miles	\$4,700,000



## **PATHWAY DESIGN CRITERIA**

The project will be designed in general conformance with the intent of the NYSDOT design manual for bikeways.

- **DESIGN SPEED:** In general, a design speed of 20 mph will be utilized. Lower design speeds may be required in several unavoidable situations associated with bridges and at intersections or obstructions. Safety warning signs and pavement markings will be provided where appropriate.
- **PATHWAY WIDTH:** The pathway widths will be as detailed on pages ? and ?.
- **PATHWAY GRADIENTS:** The maximum gradient without rails will be 5%. The maximum gradient with rails will be 1:12 (8.3%).
- **VERTICAL CLEARANCE:** 10 foot overhead vertical clearance preferred, 8 foot minimum.
- **RADIUS OF CURVATURE:** 85 foot radii preferred minimum. Several situations may require sharper curves at intersections and bridge approaches. Adequate sight/stopping distances along with warning signage and markings will be incorporated into the design.
- **CROSS SLOPE:** 0.01 ft/ft minimum and 0.02 ft/ft maximum.
- **PAVEMENT TYPE:** The pathway will be constructed using an asphalt wearing surface with a gravel subbase. Additional asphalt courses, gravel base and geotextile fabric may be required in areas of poor drainage, poor soil conditions or at locations where major vehicle crossings may occur.
- **PAVEMENT DRAINAGE:** The pathway will maintain a cross slope as described above to ensure adequate drainage.
- **EMBANKMENTS:** In narrow passage areas with steep existing grades, the pathway will typically be supported by retaining walls with guide railings.
- **GUIDE RAIL:** Approved bicycle guide railing will be installed along all retaining walls and at locations where steep slopes or water are in close proximity to the pathway. Extent of guide rails will be confirmed in the design development phase.
- **UTILITIES:** The intent is to minimize any conflicts with or disturbances of existing utility lines or structures.
- **SIGNAGE, TRAFFIC CONTROL AND PAVEMENT MARKINGS:** Bicycle and pedestrian safety will be ensured by the use of signs and pavement markings as

per the New York State Manual of Uniform Traffic Control Devices. Bollards may be installed at all points of entry onto the pathway to prevent unauthorized use of motorized vehicles.

- **LANDSCAPING:** Landscaping will generally be kept to a minimum. Low growing shrubs or ground covers may be utilized on embankment areas. Existing shrubs and trees will be selectively cleared along the route to open up views and increase visibility of the pathway for security purposes.
- **HANDICAPPED ACCESSIBILITY:** All sections of the proposed pathway including bridges and their ramp approaches shall be designed in accordance with the Americans with Disabilities Act Accessibility Guidelines. The design intent is to provide safe and proper access for joggers, walkers, bicyclists and to also include provisions for wheelchair bound persons and the visually impaired.
- **SECURITY:** Coordination meetings between the Evans Police Department and the Erie County Sheriffs Office will be held to discuss security methods and strategies. Installation of security call boxes and the limited use of the facility at night time may be considered.

### **STATUS OF S.E.Q.R. COMPLIANCE**

The Erie County Department of Environment and Planning has been designated lead agency for the Wendt Beach to Bennett Beach segment of the project. A Short Environmental Assessment Form has been completed and a Negative Declaration received for this area. The remainder of the phase one area will have to be similarly designated.

It is probable that a Cultural Resource Investigation will have to be completed as part of the funding requirements for phase one of the pathway.

